

APPARATUS, METHODS AND COMPUTER PROGRAM PRODUCTS
FOR ESTIMATION OF BATTERY RESERVE LIFE USING
ADAPTIVELY MODIFIED STATE OF HEALTH INDICATOR-BASED
RESERVE LIFE MODELS

ABSTRACT OF THE DISCLOSURE

A model of battery reserve life that a function of a SOH indicator is adaptively modified responsive to intermittent capacity tests of a battery, e.g., based on reserve life estimates generated responsive to the capacity tests. The SOH indicator for the battery is monitored to generate SOH indicator values, and estimates of reserve life are generated from the generated SOH indicator values according to the adaptively modified model of reserve life. For example, a capacity test may be performed responsive to detection of a change in reserve life as estimated by the model of reserve life, and the model of reserve life may be modified responsive to the capacity test. The battery reserve life model may, for example, express reserve life as a function of a float voltage, a float current, a temperature, a charge/discharge cycling, an impedance, a conductance, a resistance, and/or a coup de fouet parameter. The invention may be embodied as methods, apparatus and computer program products.